

LP

F

5012

1864

Q

Queen's University
Library

KINGSTON, ONTARIO

REPORT

OF
THE COMMITTEE

ON THE
HUMAN RIGHTS AND
CONDITIONS OF THE
INDIAN AND GEORGIAN BAY TERRITORY.


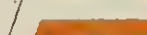

PRESENTED BY ORDER OF THE LEGISLATIVE ASSEMBLY



PRINTED BY

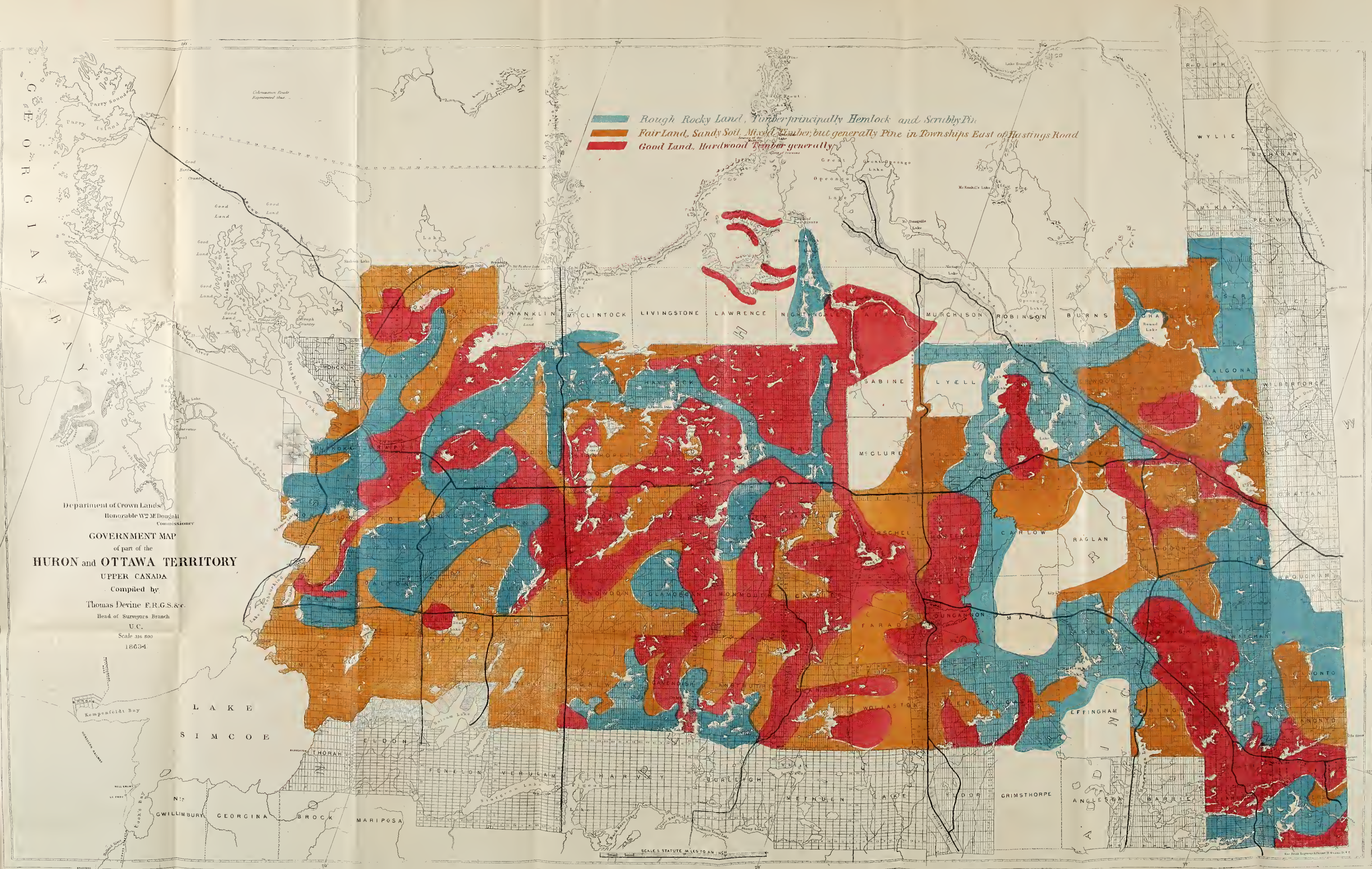
JOHN G. HURTER, BOOK & LEADERS, 10, ST. JAMES ST.
1881.

C E O R G I A N

 Rough Rocky Land, Timber principally Hemlock and Scrubby Fir
 Fair Land, Sandy Soil, Mixed Timber, but generally Pine in Townships East of Hastings Road
 Good Land, Hardwood Timber generally

Department of Crown Lands
Honorable W. McDougall
Commissioner

GOVERNMENT MAP
of part of the
HURON and OTTAWA TERRITORY
UPPER CANADA
Compiled by
Thomas Devine F.R.G.S. &c.
Head of Surveyors Branch
U.C.
Scale 316 800
18634



F 5012
1864 Q

REPORT OF COMMITTEE

OF

OTTAWA AND GEORGIAN BAY TERRITORY

LEGISLATIVE ASSEMBLY,

Monday, 7th March, 1864.

Resolved, That a Select Committee, composed of Hon. Mr. Abbott, Mr. Shooly, Mr. Jackson, Mr. MacIntyre, Mr. Mackenzie (Lambton), Mr. McConkey, Mr. Jones (Leeds and Grenville), Mr. Bell (Russell), Mr. Conger, Mr. Joly, Mr. Rémillard and Mr. Morris, be appointed to consider and report as to the natural features, a adaptation for settlement, resources and extent of the territory lying between the Ottawa River and the Georgian Bay, and on the Northern Shore of Lake Huron; and also as to the best means of opening up and developing the said territory, either in connection with the existing Colonization Roads, or by the establishment of other central roads; with power to send for persons, papers and records.

Attest,

WM. B. LINDSAY, JR.,
Clerk, L. A

TUESDAY, 17th May, 1864.

Ordered, That the Committee have leave to report from time to time.

COMMITTEE ROOM,

Wednesday, June 15th 1864.

The Select Committee appointed to consider and report "as to the natural features, adaptation for settlement, resources, and extent of the territory lying between the Ottawa River and the Georgian Bay and on the Northern Shore of Lake Huron, and also as to the best means of opening up and developing the said Territory either in connection with the existing Colonization roads, or by the establishment of other central roads, with power to send for persons, papers and records," beg leave to present the following, with the evidence adduced before them attached, as their Final Report:—

WEDNESDAY, 15th June, 1864.

The Committee, on entering upon their duties, resolved to address their attention to the following subjects of inquiry, viz:—

First. As to the extent and general character and resources of the Territory lying between Lake Huron on the West; French River, Lake Nipissing and the Ottawa River on the North and East; and the Townships on the South, surveyed previously to 1850;

Second. The portions of such Territory suitable for settlement, their geographical position, extent and quality;

Third. The portions producing Merchantable Timber, and the best mode of dealing therewith in order to combine the interests of colonization and the utilization and preservation of such timber;

Fourth. As to the extent, character and resources of the country lying north of Lake Huron, the French River, Lake Nipissing and the Mattawan ;

Fifth. The system to be adopted for carrying out the conclusions arrived at in the investigation of the foregoing subjects.

The House having, however, subsequently and, in fact, in consequence of the discussion that arose upon the motion for the appointment of the present Committee, appointed a Committee to "enquire into the causes of the rapid destruction of our forests, and the means to be adopted to prevent it ; to consider the expediency of reserving, as forests, the extensive tracts of land which abound in exportable timber, but are unsuitable for cultivation ; of enacting a forest law, and to suggest that system which, in its opinion, is best adapted to the requirements and conditions of the country," this Committee have not entered at length into the inquiry relating to timber, and have only considered it incidentally, being of opinion that the trade affected is of such large importance that the question would be best dealt with, as one affecting the whole Province.

The subject referred to the Committee is a very extensive and important one, inasmuch as the only large body of good lands of any extent now belonging to the Crown, is to be found in the region in question. Moreover, the extent of the unsettled country bears so large a proportion to the remaining portions of Upper Canada, that, in fact, unless settlement can be carried on in this region, Canada would remain a mere frontier strip bordering the margin of the St. Lawrence and the Great Lakes. This will be apparent on reference to any good map of Upper Canada and from the following statements :

The old Townships of Upper Canada contain	20,627,531	Acres.
The newly-surveyed Townships, being the section represented on the accompanying map, embrace.....	3,785,581	"
The unsurveyed portion of the Territory bounded on the North by Lake Nipissing, the French and Mattawan Rivers.....	6,683,867	"
While that section of Upper Canada north of Lake Huron and to the East of Lake Superior covers an area of...	35,489,535	"

of unsurveyed lands.

The Committee, as will be observed, divided the Territory embraced in their inquiry into two great natural and geographical sections, their attention being chiefly directed to the former of these, as comparatively little is yet known of the latter.

FIRST—THE OTTAWA TRACT.

The geological structure of the Territory is "Laurentian," by which is meant a series of rocks composed of gneiss interstratified with important bands of crystalline limestone, and comprehending great masses, consisting chiefly of lime feldspars.

A popular impression has prevailed that the country was of purely granite formation and therefore sterile, but this is erroneous. Sir William Logan is of opinion that fertile land will be found not alone where the limestone bands crop out, but also over a surface more or less extended, wherever the ruins or *débris* of the limestone have been deposited in the valleys, and this opinion is borne out, in fact, by the testimony and actual observations of persons familiar with the country, and is also substantiated by the results obtained from the Surveyors' Reports as exhibited on the colored map of the newly-surveyed Townships, which has been prepared by the Crown Lands Department.

Sir William Logan was further of opinion, that probably one-sixth of the territory in question may be occupied by the limestone bands referred to, while the portions of the Laurentian formation, covered by the *débris* of the limestone, may be sufficient to make the proportion of fertile land equal to one-fourth of the whole.

The Committee have no desire to overstate the amount of land in the territory in question which is immediately available for settlement, neither do they desire to urge the occupation of those portions of the territory which shall be found to be manifestly only adapted for the production of pine timber, fully recognising the commercial importance of this great interest.

The value of the exports of the products of the Forest, amounting last year (1863) to \$13,543,926, entitle this trade to weighty consideration, but the Committee are persuaded

that there need be no real antagonism between due care of the purely pine forests and the advance of colonization into those portions of the country which are adapted for settlement. There ought to be no conflict between the two interests and under wise and adequate regulations, such variance as has occasionally existed in the past can, and ought to be avoided. A thorough examination of the whole territory, is in the opinion of the Committee desirable, in order that it may be fully ascertained, on reliable authority, what portions of the territory are adapted for settlement, and how access is best to be afforded to such portions.

Sufficient information has been obtained by the Committee to justify them in urging such an exploration, inasmuch as they are fully persuaded that, apart from those sections of the unsurveyed country in question which are only or mainly valuable for the growth of pine timber, there is yet a large portion available for settlement. With reference to these sections, the Committee refer to the following statements of witnesses summoned before them, and bearing upon the questions now under consideration. Speaking of the interior of the country between the Ottawa and Lake Huron and commencing at the 118th mile from the Lake Opeongo on the line run by him from that Lake to Lake Huron, Mr. Shanly says :—

"The second and third sections, taking in an east and west width of forty-one miles, intersect a well-timbered, well-watered, tract of good land, much of it *very* good, and, stretching in a north-westerly direction, it is pretty well established, to the vicinity of Lake Nipissing and the French River, and south and south-east it may be assumed to the waters of the Muskoka River—limits which give to this vast oasis a north and south length of about eighty-five miles;" and he arrives at the general result "that in the interior of the Ottawa and Georgian Bay Valley, there is in the newly-surveyed and unsurveyed territory two and a half millions of acres fit for settlement, of good wheat-growing quality," being one-fourth of the entire area of the then unsurveyed region, lying south of Lake Nipissing.

Mr. Shanly is further of opinion, that the "climate will interpose no insuperable barrier to the settlement of the country where other conditions are propitious," the bulk of its area being comprised between the forty-fifth and forty-sixth parallels, lines that bound some of the most populous districts of Lower Canada.

With reference to portions of the belt in question, the views of Mr. Shanly have been confirmed by actual results. Mr. Devine, speaking of the surveyed portion of the territory in question, states that, "at the present moment, settlement is making rapid progress to the north of Lake Simcoe and Muskoka River, and the greater portion of the Huron and Ottawa Territory will be settled from these points, owing to the water communication in that direction."

Sir William Logan, speaking of his own knowledge, and also referring to the results of surveys conducted by Mr. Murray, under his supervision, corroborates the statements of Mr. Shanly as to this interior belt of good country, and concludes by stating that "it appears to me of the highest national importance that the available parts of the Laurentian region generally should be settled upon, as the Devonian and Silurian rocks, hitherto chiefly resorted to, constitute little more than an extended narrow strip along the frontier of the country."

Mr. Keefer, while pointing out "that the existing free grant and other roads connect the settlements with each other, but practically with nowhere else," is of opinion, "that, on the whole, the Ottawa and Huron tract is at least equal to New England, though it is probable that the good lands are better and the bad ones worse than in Vermont and New Hampshire." This gentleman, in urging the necessity of developing the territory and the affording a base line of operations with view to an efficient system of settlement, and in order thereto, the construction of a railway from the city of Ottawa to the foot of the Georgian Bay on Lake Huron, which he thinks would "nourish existing settlements and give birth to new ones within thirty miles on either side, wherever there was a suitable tract of land," states that the peculiarity of the Ottawa and Huron tract, as a wilderness one, is that, unlike the valley of the St. Maurice and the Saguenay, "it is not naturally a *cul-de-sac*, but, if opened through, would form one of the shortest routes between the most important points East and West." Such a route, he says, would form part of the shortest possible route between Montreal and Lake Huron, and for the grain traffic between Chicago, Milwaukee and Montreal, would compete with any other railway route. He further adds, "such a route could be placed in direct connection with the northern portions of

the Counties of Simcoe, Huron, and Bruce, giving these districts direct communication with Ottawa, the political, and Montreal, the commercial metropolis, on the shortest route, and, if extended to Sarnia, would bring the whole West into connection with it, making this present wilderness a thoroughfare for a great portion of the continent."

These views may be of distant realization, but the Committee deem it right to call attention to them as likely to be eventually accomplished.

With a similar object in view, Mr. Hayes, who gives a very full and interesting account of his colonization agency, viz., that of the "Hastings Road" and the adjoining Townships, suggests "the construction of cross roads running east and west, particularly on the southern portions of the (surveyed) territory, to give solidity to the settlements and secure the ground as an advance northwards," and states "that first and most important of such improvements, he would place a road from Perth (in the County of Lanark) to run at a distance of about thirty miles from Lake Ontario, through Peterborough, to Bradford or Holland Landing, on the Northern Railroad. This road, he says, would facilitate and promote intercourse between the Northern Counties and Ridings, through which it would pass; would give a new front to the back Townships, furnish a new starting point for settlement, and could be made at a cost comparatively trifling, in view of its advantages, as many existing pieces of road could be made available."

Such a road would be of great value, and is besides more likely to be immediately realized than the larger project of Mr. Keefer, and the Committee therefore call attention to the proposal.

The Committee now proceed to speak of that portion of this great sub-division which has been surveyed, and which is exhibited on the accompanying map. This section comprises 3,785,581 acres. The very valuable map referred to has been prepared by T. A. Devine, Esquire, head of the Upper Canada Surveyor's Branch of the Crown Lands Department, and this, the Committee have every reason to believe, will be found to convey a fair representation of the character of the land in these townships. The evidence of Mr. Devine explains the mode adopted in its preparation from the Surveyors' Reports. According to this map about one-third of the country is good land, another third is fair land and another third rocky and barren. The whole of the country is much broken by lakes and rivers. The Government has endeavoured to aid in the development of this section of the country by the opening up of Colonization Roads into and through portions of it. Of these roads there are now nine. Their several positions and their geographical relations to the surveyed territory and to one another will be found with a brief explanatory statement, in the appendix hereto, marked A.

The Committee are of opinion that the whole subject of the position of these roads should receive speedy consideration, and they would recommend that in the future construction of any new roads as well as in the extension of the existing ones, a definite system should be adopted, so that while means of access should be afforded to the interior country, lateral east and west lines should be established, giving the means of communication between the settlements that have grown and will grow up along these roads. A steady and regular system of supervision of these roads should also be maintained by competent Inspectors, in order that the comparative progress of settlement may be ascertained and the efficiency of the system may be tested and sustained, and the future establishment of new roads may be entered upon as part of a general plan, carefully digested and earnestly adopted, with the view to the opening up of the back country of Canada.

The Committee would further urge, very strongly, the necessity of a thorough exploration and examination of the unsurveyed territory being at once decided on, to be carried on by competent persons appointed by the Government, in order that settlers may be directed to such portions of the country only as may be found to invite settlement. No more important work can be engaged in than this, and the adding of two or more millions of acres to the available Crown Lands of the Western Province would be an addition to the resources of Canada, of no slight magnitude. So soon as the localities in which good land is to be found shall have been thus ascertained and defined, the intersection of the territory by new roads or by the extension of existing roads, could be better effected and would contribute to the growth and advancement of the population of this Province.

The Committee earnestly press the adoption of these two plans:—

1st. The exploration of the territory, and

2nd. The giving of free access by the establishment of leading and lateral roads to such portions of the country as shall thereafter be found fit for settlement.

The subject is one of national importance, for while the products of the forest in this great region have proved a source of Provincial wealth, and will continue largely to add to the volume of Canadian trade, and, therefore, the rights and interests of its producers should be respected, yet, it is nevertheless true, that there are large sections of the country well adapted to afford homes to many thousands of settlers. The territory, as a whole, it may safely be said, will well compare with the New England States, in climate, mineral wealth, and general adaptation for the abode of a hardy and numerous population. Let the adventurous youth of our old settlements be encouraged to enter upon the occupation of this country—let the immigrants be judiciously led to such portions of it as are adapted for their reception, and thus our Province will cease to be a mere frontier strip and will find new elements of natural strength in the occupation of our interior country.

SECOND.—THE HURON COUNTRY.

The Committee have but little to report as to the more northerly section of the territory, their inquiries having chiefly been confined to the Ottawa and Huron tract.

That portion of the country lying north of the French River, Lake Nipissing and the Mattawan is still of Laurentian structure, as far back as to a line drawn from the mouth of the former river to the mouth of the Montreal river on Lake Temiscamingue, and there is little limestone to be found in it. From that line westwardly to the River St. Mary and Lake Superior, the country is occupied to a considerable breadth by the Huronian series of rocks, with which there is interstratified a great amount of greenstone, the ruins of which produce fertile soil.

This territory comprises upwards of thirty five millions of acres of unsurveyed land, and has been ascertained to possess large mineral resources.

The ensuing extracts from a report of A. P. Salter, Esquire, P. L. S., give interesting information as to the character of the country and the nature of its resources:—

"It next becomes my duty, in compliance with your instructions and in furtherance of the service with which I have been entrusted, to speak of the resources of the country, and while I approach the subject with diffidence, feeling my inability to do justice to it, I must say, that after a further examination and mature reflection, I see no reason to change the opinion I had formed when penning my report to you of 30th July, 1855.

"Viewed in three points,—first, as an agricultural country; secondly, as a mixed timber and mineral producing region; and thirdly, as regards its fisheries, I feel warranted in saying that at no very remote period this section will be a source of vast revenue to the Province.

"As an agricultural country, although it is true that on the coast of the Lake, and for some miles inland, the country is, in most places, rugged and barren, and equally true that further in the interior the valleys of good arable land are crossed by rock hills, presenting the same sterile appearance, yet large and extensive tracts were found with a deep alluvial soil, furnishing material for the formation of, I consider, at least sixty five Townships of thirty-six square miles area each, capable of producing to perfection rye, oats, barley, maize, grass and all kinds of root crops.

"That this is no theoretical view is substantiated from the fact that in many places rude, Indian clearings were met where several of the crops were seen growing luxuriantly, and from this I think I may safely arrive at the conclusion that were the country settled by a class of industrious agriculturists, that which is now produced under the rude husbandry of the half-civilized savage, could be profitably grown by those accustomed to tilling the soil.

"I have not mentioned wheat, autumn or spring, because, from the length of the winter and the great depth of the snow, I am of opinion the former cannot be cultivated to advantage, and that the latter would, in many instances, be a precarious crop; but in expressing this opinion, I will mention that from a person named 'Walker,' settled on 'Campment D'Ours' near Port Lock Harbour, I learned that wheat had been successfully cultivated, three years in succession, on St. Joseph's Island, which, as a crop, both in quality and quantity, proved remunerative to the grower. As a timber region, many extensive tracts of pine of a very fine quality were seen, both red and white, and this valuable timber is scat-

tered, to a greater or less extent, throughout the whole country, and further, the birch, tamarac, cedar and spruce, of which timber there is no lack, all serve to enhance its value as a lumber country. Pine, the most valuable of all, is more frequently met with in the most broken and rugged sections of the country.

"That I do not exaggerate the value of this country as a timber region, the following quotation from the *Democratic Press*, an American newspaper, will show :

"The lumber trade of Chicago is one of her most important and leading branches of business. Next to the grain trade, that in lumber claims pre-eminence, and maintains a most powerful rivalry. During the year, large additions have been made to its extent and value, and it may now be well questioned whether there exists in the United States a greater lumber-market than Chicago. Her supplies are drawn from every direction, and from the most distant localities,—from Pennsylvania and the Valley of the Susquehanna, from Michigan and Wisconsin, from Canada and the St. Lawrence.

"The demand from the whole growing region about here is immense, and is yearly increasing. The receipts of lumber in 1847 were 32,000,000 feet, in 1855 they were 300,000,000 feet."

"To the market of Chicago this region has ready access during the summer months, as from its geographical position, lumber can be delivered there more readily and at less cost, than from any other portion of Canada. The markets of Toronto and Oswego are equally accessible, and with an increased demand for lumber, extensive forests and water-power unlimited, I cannot think this section of Canada will long remain in its present unimproved state.

"Of the mineral resources of the country, as I am not a professional Geologist, it would be presumption in me to speak, particularly after the careful examination which has been made of it by gentlemen so eminently qualified for that service, but I may be permitted to say, that in the most sterile sections, indications of mineral were constantly met with, which would lead me to hope that at some future period these portions will serve to increase the revenue of the country.

"The fisheries, though of minor import to the subjects above treated of, I feel it my duty to touch upon, as they at present furnish the principal staple production of the country, many hundred barrels of whitefish and trout being yearly exported from the several fishing stations on the lake.

"The principal parties employed in taking the fish are half-breeds, who resort to the same grounds year after year ; and no reasonable doubt can be entertained but that there are many other stations on the coast, now unfrequented, which if worked would considerably increase the take and export of this article of commerce.

"The resources of the country may then be summed up in a few words.

"The coast, rugged and rough as it is, affords employment to those who, unable or unwilling to follow any other line of business, devote their time to the taking and curing of fish for export.

"The rivers, with their magnificent water-power, and the more rugged and broken portions of the interior, hold out inducements to capitalists to employ their means in the manufacture of lumber or to the development of the mineral resources of the country ; while to those who prefer agricultural pursuits, an ample field is offered of obtaining the means of subsistence for themselves and of supplying the wants of those whose inclination leads them to embark in either of the other callings."

From the statements it is apparent that in this great section of the country, considerable areas will be found adapted for settlement ; it is therefore desirable that this territory also should be thoroughly explored, with a view to its occupation and colonization.

The Committee transmit herewith the evidence taken before them.

The whole respectfully submitted.

ALEXANDER MORRIS,
Chairman.

APPENDIX.

QUESTIONS SUBMITTED TO *W. Shanly, Esq., M.P.; T. Devine, Esq.; M. P. Hayes, Esq.; T. C. Keefer, Esq.; S. J. Dawson, Esq., and Allan Gilmour, Esq.*

No. 1. What is your occupation?

No. 2. Have you had any and what personal opportunities of becoming acquainted with the unsurveyed territory lying between Lake Huron on the West, Lake Nipissing and the Ottawa River on the North and East, and the Townships on the South, surveyed previously to 1850, or any portion thereof?

No. 3. If you are acquainted with the territory, look at the subjects of inquiry with respect to which the Committee have agreed to obtain information, and state to the Committee your knowledge and views as to these subjects?

QUESTIONS SUBMITTED TO M. P. HAYES, ESQ., IN ADDITION TO PREVIOUS QUESTIONS
NOS. 1, 2 AND 3.

No. 4. Are you Crown Lands Agent on the Hastings Road, and how long have you been stationed there?

No. 5. How many Townships are embraced in the district under your supervision?

No. 6. What is the general character of the land along the Hastings Road?

No. 7. What number of settlers may have gone in to settle along the road since you have been in charge, and do settlers continue to go in there each year still?

No. 8. Have any, and if so, what proportion of the settlers abandoned their lots and left that section of the country, after making some improvement?

No. 9. Do the settlements extend back from the line of the Hastings Road; if so, how far back, and in what township are the settlements advancing most?

No. 10. What is the character of the Hastings Road as a *passable highway*, in point of bridging, grading, &c.?

No. 11. Are the settlers who have "located" the lands chiefly "emigrants recently from the old country," or are they old settlers, or the sons of old settlers, from other parts of Canada?

No. 12. Can you give an estimate of the proportion of "land fit for settlement" along and contiguous to the Hastings Road, as compared with the barren land not worth clearing?

No. 13. What is the general character of the timber in the Township under your jurisdiction?

Nos. 14, 15, 16, 17 and 18, submitted to and answered by Sir W. E. Logan.

QUESTIONS SUBMITTED TO ALLAN GILMOUR, ESQ., IN ADDITION TO PREVIOUS QUESTIONS, NOS. 2 AND 3.

No. 19. Can you state to the Committee what portion of the territory you are familiar with is to be regarded as specially a pine country, and producing merchantable timber?

No. 20. Can you make any suggestions as to the best mode of utilising and preserving the timber in the territory in question, and as to whether the interests of colonization can be combined therewith?

ANSWERS OF W. SHANLY, ESQ.

Ans. to Ques. 1. I am a Civil Engineer by profession.

Ans. to Ques. 2. I have made a personal exploration of that portion of the territory in question lying along the coast of the Georgian Bay and along the French River, Lake Nipissing, the Mattawan River and the Ottawa, down as far as the Chats Lake, and I also had a line run (in 1856) through the interior of the territory, from the mouth of the

Bonnechère River on the Ottawa, to the mouth of the Maganatawan River on the Georgian Bay, passing by Great Opeongo Lake, in the heart of the unurveyed territory.

Ans to Ques. 3. For my views as to the character, resources and climate of the territory in question, I would refer the Committee to a report addressed by me in 1857, to the Department of Public Works, on the results of the interior survey alluded to. A copy of that report I hand in, and I would direct the attention of the Committee to the marked passages on pages 5, 6, 8, 9, 10, 11, 12 and 13, as follows:—

The 95th mile, from the mouth of the Bonnechère, terminates the Eastern division of the survey of which, as has been said, the first 43 miles lie within the limits of civilization, and through a fine fertile tract of land. Of the remaining 52 miles the leading characteristics may be summed up as follow:

	MILES.
43rd to 45th mile,—Fair level land.....	2
45th to 53rd “ Low and swampy	8
53rd to 72nd “ Arid and rocky, red pine plains	19
72nd to 89th “ Broken hilly land, chiefly pine timber.....	17
89th to 95th “ Broken hilly land, mixed timber.....	6
	<hr/> 52

The average of this section of the valley of the Ottawa, as indicated by this line of survey, is not, then, inviting for settlement. To the north of the line nothing better than the average thus obtained is to be looked for, the lands bordering the Ottawa River itself, as well as those belonging to the intermediate valley of the Petawawa, both well known, being closely kindred in their nature to the decidedly sterile tract upon the more inland route traversed by Mr. Sinclair. South of his line, too, the average has been found to obtain for some considerable distance; and there can be little doubt that the more genial features of soil &c., which are occasionally to be discovered further in the interior about the head waters of the York branch of the Madawaska, for instance, must be taken as the exception, rather than the rule, in sketching, in the general topography of that section of the country.

On his homeward route, Mr. Sinclair made a long detour to the north, crossing to the upper extremity of Great Opeongo Lake, and thence striking for the sources of the Bonnechère, whence he followed the course of that stream downwards to his point of departure from it on the main line of survey, viz., the seventy second mile. He reports the salient features of the country on the upper waters of the river as not at variance with those encountered further inland; the natural wealth of the district, which in that particular is not inconsiderable, being mainly concentrated in noble forests of red pine.

In describing the route from Lake Opeongo to Lake Huron, I will continue to reckon the mileage from the East, counting the one hundred and thirteenth mile from the Georgian Bay the ninety-sixth from the mouth of the Bonnechère.

As we proceed westward, a growing change is perceptible in the character of the country, and, on nearing the point where the waters begin to flow in the direction in which we are advancing, the domain of the red pine is visibly on the wane, while the white pine, and those descriptions of hard wood, such as beech, maple, and elm, which are commonly accepted as indications of “good land,” gradually begin to predominate, and the general characteristics of the western half of the survey may be condensed into six sub-divisions, thus:—

	MILES.
1.—95th to 118th mile,—Rough, rolling, rocky surface, sandy soil, mixed timber, and some good white pine	23
2.—118th to 150th mile,—Much good hard-wood land	32
3.—150th to 159th mile,—Very good hard-wood land.....	9
4.—159th to 178th mile,—Rough, rolling, and rocky, good mixed timber, but very light soil.....	19
5.—178th to 198th mile,—Very rough and rocky, little soil, some good pine,	20
6.—198th to 208th mile,—Utterly barren.....	10

Total mileage from Lake Opeongo to Georgian Bay..... 113

The whole of which region is interspersed with frequent, and for the most part, rock-bound lakes and streams, the watershed of which, as has been said, is westward for the last one hundred miles of the route.

Of these sub-divisions, the first and fourth, making an aggregate length of forty-two miles, are of very similar character, presenting, no doubt, exceptional tracts of tolerably good land, but, on the whole, of harsh, rugged, and rocky aspect. White pine is somewhat abundant and of good size and quality.

The second and third sections, taking in an east and west width of forty-one miles intersect a well-timbered, well-watered tract of good land, much of it *very* good, and, stretching in a north-westerly direction, it is pretty well established to the vicinity of Lake Nipissing and the French River, and south and south-east it may be assumed to the waters of the Muskoka—limits which give to this vast *oasis* a north and south length of about eighty-five miles, causing it to embrace an area of some two and a quarter million of acres.

I am led to assign the above boundaries to this favorable tract of country from certain observations made to the northward by myself in exploring the French River, towards the upper waters of which maple land is seen to approach its rocky margin from the south. I also ascended a large river, the Namanatagohus, falling into the south-easterly angle of Lake Nipissing, and, not far above its mouth, found the land beginning to assume a cultivable appearance, improving the further I went up; while, from Mr. Murray, the Assistant Geologist of the Province, who has explored this river almost to its sources, I learn that its valley throughout presents an average of good hardwood land, and that its upper waters are in close proximity to those of the Maganatawan or its tributaries, approaching probably most near to that tributary of the latter river hereinbefore designated the "Distress."

In fixing the Muskoka River as the probable southerly limit of this tract, I am guided by information gathered from the notes of a survey carried along its valley some years since by Mr. Robert Bell, Provincial Land Surveyor, who reports a fair character of land bordering such portion of that river as would correspond with an extension in that direction of the broad belt described as *good* on the line explored by my assistant, Mr. Gossage.

Of the fifth and sixth sections, covering the last thirty miles of the route, little that is flattering can be said. Whenever the pine timber, of which the former sub-division can boast some of fair quality (both white and red), shall have been culled out, nothing will be left but the dry, barren sand, or hard naked granite. The last ten miles is wholly through the broad margin of granite rock which forms the harsh and forbidding coast of the Georgian Bay from the mouth of the Severn upwards, and which I penetrated for some distance inland at two points besides that traversed by the exploratory line from the mouth of the Maganatawan, at Franklin Inlet, further south, and at the French River, further north. The entire frontier, with a width of from twenty to thirty miles, may be described as a region to the last degree sterile and desolate.

I have above estimated the area of the unsurveyed territory at ten millions of acres, a tithe of which surface—the face of the country being pitted over with countless lakes and ponds, and seamed by rivers and creeks without number—may safely be set down as *water*.

There will then be nine million acres to account for as *land*, which I roughly classify thus:—

	ACRES.
Red pine region.....	2,000,000
Barren frontier of granite rock.....	1,500,000
Belt of good land in interior.....	2,000,000
Rough, rocky, and hilly districts, with some good land—timber, hardwood and white pine.....	3,500,000

I do not think that less than two millions of acres can justly be allotted as the sterile domain of the red pine, when to those broad tracts, described by Mr. Sinclair as occupying the valley of the Bonnechère and the Pettawawa, and stretching southward towards the Madawaska, is added the margin along the Ottawa, the Mattawan, and the French Rivers, where only that species of timber is seen to thrive.

That the still more barren district, absorbing one and a half million of acres, assigned to the granite, is not overrated in extent, will, I am sure, be conceded by any observant "voyageur" who has traced its rugged outline from the Severn along the bleak coast of

the Georgian Bay, thence up the French River across Lake Nipissing, and down the Mattawan and the Ottawa, a frontier line of not less than one hundred and eighty miles in length.

The belt of good land traversing the interior of the district, from north to south, is above set down as *all* good; too liberal a mode of estimating the qualities of "wild" land, even in the most favored sections of the Province. To arrive, however, at a fairer ultimate estimate of the probable quantity of land fit for settlement, I deduct from these two million acres, one-fifth (a tenth of the belt having been already called water), as its possible percentage of bad land.

The three and a half million acres, on the other hand, which are set apart as comprising the "rough, rocky, and hilly districts, wooded with hardwood and white pine," a class of surface which forms the most salient feature of the territory, embrace some isolated tracts of *good* land, the aggregate area of which, I venture to assume, at one-fourth of the whole, or, in round numbers, 900,000 acres, adding which to the 1,600,000 acres which remain, after deducting a fifth from the area of the "belt," we have two and a half million of acres of *land fit for settlement* on the Ottawa and Georgian Bay valley, one-fourth of the entire area of that sole remaining unsurveyed portion of Upper Canada lying south of the region of Lake Nipissing.

The land that has been classified above as "fit for settlement" is of good wheat-growing quality; the country is well watered throughout; healthy in no common degree; and, finally, capable of and therefore destined to maintain, if not a dense, at all events, a hardy and self-reliant population.

In a geographical point of view, when the question of climate has to be considered, it may be observed that the most northerly limit of the unsurveyed territory is fully half a degree further south than the latitude of Quebec, the bulk of its area being comprised between the 46th and 45th parallels—lines that bound some of the most populous and fertile districts of Lower Canada; take, for instance, the County of Terrebonne, on the north, and the County of Beauharnois, on the south. There is then no reason to apprehend that climate will interpose any insuperable barrier to the settlement of the country where other conditions are propitious. At the same time, I would state that the result of certain thermometrical observations made this winter, both in the interior and on the northern frontier, lead me to believe that the extremes of cold are likely to prove greater than in the district of Montreal, a difference that may be due to the greater elevation of surface in the former than the latter section of country. Mr. Sinclair reports 34° below zero (Fahrenheit) on the 18th December at Great Opeonga Lake, about 1,000 feet above the level of the sea, while on the upper waters of the Mattawan River, latitude about 46° 20', and at an average elevation of 640 feet, the mercury has more than once sunk to the point at which it freezes, 39° below zero. It is a difficult matter in migratory camps to keep meteorological records with the nicety that is essential to give them a high value, added to which difficulty the instruments for that purpose, with which the surveying parties on the Ottawa were furnished, are not of the most reliable order. The mean of observations, however, taken at four different localities, agree sufficiently near to warrant the conclusion that the cold in that region is excessive. It should be borne in mind, at the same time, that the weather in the latter part of last December and nearly the whole of January was rigorous throughout the Province beyond the average of our winters.

ANSWERS OF T. DEVINE, ESQ.

Ans. to Ques. 1.—I am head of the Upper Canada Surveyors Branch, Department of Crown Lands.

Ans. to Ques. 2.—I surveyed the York branch of the Madawaska River in 1847, and traversed the country lying between the Township of Madoc and the easterly end of Round Lake on the Bonnechère River; the land between Madoc and the mouth of the York River appeared to me to be a tract of hardwood land, with scattered patches of pine lands, and the section between the York River and Round Lake, as pine lands, very stony, with large patches of scrubby timber. I made an angular survey of the York River and some of its tributaries, and found a good tract of land back from these rivers.

Ans to Ques 3. The surveyed land in Upper Canada comprises about 25,108,693 acres, and of this quantity the section represented on the colored map of the Huron and Ottawa Territory accompanying the Commissioners' Report for last year, contains

3,785,581 acres, and the unsurveyed portion of that territory, bounded on the north by Lake Nipissing, the French and Mattawan Rivers—6,683,867 acres.

The section of Upper Canada north of Lakes Huron and Superior, contains an area 35,489,535 acres of unsurveyed lands.

The colored map above referred to is a fair representation of the character of the subdivided section of the country to which it relates, as the classification of the land has been established both from the reports and timber maps of the surveyors who subdivided the townships into farm lots.

As each surveyor is instructed to survey the lines surrounding every block of land of a thousand acres in each township, and to make a traverse of all the lakes, rivers and principal streams—these lines being run with a theodolite, and chained and thoroughly opened up, with posts planted at the limits of the lots and concessions—and, as the surveyor spends from four to six months in each township of about eight miles square, he has the best opportunity of becoming acquainted with the character of the township, and is the best authority as to whether the whole, or any, and what portion of it is fit for settlement or for lumbering purposes.

The greater part of the surveyed tract referred to, had been explored and many of the outlines run, before the actual subdivision into farm lots took place, and in consulting both sets of reports I find them to agree in a remarkable manner as to the character of the country.

For many years past the conflicting interests of the settler and lumberman have been a fruitful source of trouble and anxiety to the Commissioner of Crown Lands, and with the view of disposing of the grievances complained of, instructions were issued in 1859 to the surveyors employed by the Department, to represent on a tracing of the map of each township, in colors, the several sections into which it was divided, as regards its timber and soil, so that the large tracts of pine lands might be taken out of the market, and those portions of the township fit for settlement be made known to the Crown Land Agents for the information of the settlers. As each surveyor had a scale of his own respecting the quality of the land as a field for settlement, which varied according to the qualification and experience of the surveyor, the only scale upon which they could all agree as to the description of the country, would be that based upon the kind and quality of the timber according to the order of its abundance.

I should feel very reluctant to express an opinion that this territory will not be settled rapidly, and I am very sure that the surveyors' returns do not exaggerate the character of the country; indeed, in my experience of over eighteen years in the office, I have found that the value of the land has always been underrated, and in numerous instances the lands condemned by the surveyors as unfit for settlement, have since been settled with a thriving population. At the present moment settlement is making rapid progress to the north of Lake Simcoe and Muskoka River, and the greater portion of the Huron and Ottawa Territory will be settled from these points owing to the water communication afforded in that direction.

As great destruction of the pine timber is caused in the easterly section of the territory, from the carelessness of the timber manufacturers and others, and to settle the disputes between the settlers and the lumberers, I would beg to recommend that two or more inspectors, well qualified to judge as to the character of the timber and soil, should be appointed to report upon the sections of the country which should be reserved for lumbering purposes, and the portions which should be set apart for settlement. These inspectors should be under the Department of Crown Lands, and should be furnished with copies of all the timber maps, and any other information or instructions that would guide them in the proper discharge of their duties.

ANSWERS OF T. C. KEEFER, ESQ.

Ans. to Ques. 1.—I am a Civil Engineer.

Ans. to Ques. 2.—I have been up the Ottawa as far as Rocher Capitaine, about 300 miles from its mouth; up the Madawaska and Bonnechère as far as the Opeongo and Round Lakes, and in the territory then unsurveyed west of Muskrat Lake; I also made surveys for roads on inland routes from Caledonia Springs on the Lower to Pembroke on the Upper Ottawa.

Ans. to Ques. 3.—When it is known that it has taken lumbermen half a century to discover all the pine trees (so easily observed) which exist on ten square miles of a limit, no opinion, even of those who have surveyed the Township, can go much beyond what has been covered by the eye of the observer on the narrow track he has followed. My impression of the Ottawa and Huron tract, as the country referred to is called, is formed from the little I saw and the more I heard from lumbermen, voyageurs, trappers and others, while I was in charge of the Government Works on the Ottawa, between 1845 and 1849. On the whole, I would say it is at least equal to New England, though it is probable that the good lands are better and the bad ones worse than in Vermont and New Hampshire. The lands available for agriculture are not found in continuous extent as in the older settled parts of the Province, and hence do not offer the same inducements to settlers. Settlements will be weak and isolated, and therefore unable to maintain communication with each other and with the front, either on the Ottawa or on the St. Lawrence, through the medium of ordinary roads. Detached settlers may probably find in the valleys of every little stream some good land, and such will have a local market and winter employment for themselves and their teams, afforded them by the lumber trade; but this condition of things is not the most favorable to the agricultural development of the country. There are, undoubtedly, very large tracts more valuable now for their timber than for agriculture, but it does not follow that these are on that account barren. In fact that can hardly be called bad land which will grow a good tree: we can only say that we do not as yet know how to make it grow anything else. The best timber (excepting red pine) is not found in groves, but in scattered trees, and often so few to the acre (or square mile), that there may not be enough good land in any given lot of a timber district to pay for the clearing of it all. The timber is very valuable, and annually becoming more so, and its preservation is to a certain extent incompatible with the settlement of the adjoining lands, because the settlers' fires added to the camp-fires are asserted to have destroyed more timber than has been brought to market. It is moreover, unjust to the lumberman who has embarked large capital in his business and in the improvement of the streams, to allow speculation settlers to take up choice timber lots on an agricultural pretence, and make use of the roads and river improvements of others. Any attempt to extend the duration of the supply of timber by restrictions, looking to regulate the annual manufacture, is not only contrary to present views of trade but is open to the objection that we may be storing up for the fires instead of a market. There are large pineries, unfit for square timber and, until recently, considered valueless, but there are now, wherever in reach of a market, in demand for the saw mills. A large tree which will not make a sound stick of timber, may yield several saw-logs of good quality. Where there are not now near enough to the streams to be utilized, they must take their chance of the fires until a railway renders them available, or until the increase in the value of saw-logs brings them out.

What is required for any efficient system of settlement is a *base line of operations*. The Rivers St. Lawrence and Ottawa, with their steamers, railways, and markets, afford this to their immediate valleys. If the tributaries of the Ottawa, such as the Madawaska and others, were either navigable or provided with a railway along their valleys, each independent settlement could be formed and sustained from such an artery. The free grant and other roads connect the settlements with each other, but practically with nowhere else, and those portions of them which traverse the barren tracts will permanently reduce their value.

The peculiarity of the Ottawa and Huron tract as a wilderness one, is, that unlike the valley of the St. Maurice, and the Saguenay, it is not necessarily a *cul-de-sac*, but if opened through, would form one of the shortest routes between the most important points east and west. In the face of other attractions it is hopeless, for the present, to expect that emigration and settlement can be attracted to this district by existing means of communication. If inveigled there, no valuable element of population will long remain cut off from communication with the railway world, in a country where this state of things is the exception rather than the rule.

A railway from the city of Ottawa, to the port of the Georgian Bay on Lake Huron, would nourish existing settlements and give birth to new ones within 30 miles on either side, wherein there was a suitable tract of land. It would drop the better qualities of sawn lumber from interior mills into the Hudson River boats at Ottawa, and the commoner kinds into Chicago schooners on Lake Huron. It would reduce the cost of supplies to the lum-

berman, increasing his profit and to that extent compensate for its interference with his monopoly. It would find a market for the valuable fish known to exist in the inland lakes, and the still more valuable minerals more than suspected to be on their borders. Nor would it be confined to a local traffic. It would form part of the shortest possible route between Montreal and Lake Huron, and for the grain traffic between Chicago, Milwaukee, and Montreal; would compete with any other railway route. Such a route could be placed in direct connection with the northern portions of Simcoe, Huron and Bruce, giving these districts direct communication with Ottawa the political, and Montreal the commercial metropolis, on the shortest route; and if extended to Sarnia would bring the whole West into connection with it, making this present wilderness a thoroughfare for a great portion of the continent.

As a public work, in view of possible international relations, such a railway would be probably the only means by which communication between the granaries and dense population of the western peninsula of Canada and the great arsenals of Quebec and Montreal could be maintained. Neither the St. Lawrence Canals nor the Grand Trunk Railway could be relied on for this purpose; but such a route as that under consideration, connected with the tributary lines which *déboûche* at Prescott, Brockville, Port Hope, and Toronto, would enable us to throw men and supplies to any point, and support a naval dépôt on Huron and Ontario. With such a line, another Sebastopol on Lake Huron could maintain a fleet to contend for the superiority of Lake Huron, and if successful, be worth an army in the defence of the western peninsula from invasion by way of Michigan.

If the intercolonial road be desirable on military grounds, the Ottawa Valley line is much more so. The former would only bring aid to Quebec, a fortress not in need of it, and one which however valuable to the empire would be of but questionable value to us after all else is lost. The Ottawa line is indeed a necessary continuation of the Intercolonial one. In minor communications, since the larger streams are the base lines of lumbering operations, I think that portage roads past the rapids, where practicable, working in connection with canoes in summer, and ice on the slack water, in winter, would be the most economical and expeditious way of opening detached lands to the settler and placing him in connection with a local market and the main roads.

As to the more difficult question of reconciling colonization with the lumber trade as now carried on, I see no other course than to sell the lands, *exclusive of the merchantable timber thereon*, which the limited owners are entitled to on their securing the stumpage for the Crown. This management would probably lead to the early removal of the timber from lands taken up, and prevent the taking up of lots only for the sake of the timber. I fear that any plan of setting apart certain tracts for the purpose of preserving the timber will lead to constant conflict; and as the best test of the agricultural value is when a man will take up and clear it irrespective of the timber. This would be a self-acting system more consonant with our institutions, and I believe would protect both the public and the lumberman.

ANSWERS OF M. P. HAYES.

Ans. to Ques. 1 and 2.—I am Agent for the Hastings Colonization Road, and Crown Land Agent for the adjoining Townships. I was appointed in June, 1856. I am well acquainted with the character and resources of that portion of the territory within my own agency, which occupies a central position, and embraces an area of about two thousand seven hundred square miles.

I have also some knowledge, from personal inspection, of the western portion of the territory, in the neighborhood of the River Severn and the east shore of Lake Huron.

My knowledge of the remaining portions consists only of information derived from conversations with persons who have inspected various sections of it, and from the reports of surveyors. I shall confine my remarks, as far as your questions permit, to that portion of the territory with which I am acquainted from personal observation.

Ans. to Ques. 3.—The territory under review contains about forty thousand square miles of land and water, and is embraced between the 77th and 80th degrees of west longitude and the 44th and 46th parallel of north latitude. My agency is all south of 45° 30', and therefore, in respect to climate, is very favorably situated in comparison with any other large fields for settlement under the British Crown in North America.

Purposing to give a detailed description of the Townships, I will merely state here, in general terms, that about forty per cent. of the land in my agency is good land, fit for agricultural purposes; another forty per cent. is rough, broken, rocky land, which cannot be ploughed, and the remaining twenty per cent. consists of low-lying black ash swales, cedar swamps and beaver meadows, which will eventually be very valuable lands to the farmer, and now afford great aid to settlement in the abundance of wild, blue-joint hay which they yield.

The southern Townships of my agency, forming the height of land from which the waters flow both ways (towards Lake Ontario on the south and the Ottawa on the north-east), are in general composed of very rough, broken, rocky land, intersected by occasional tracts of good alluvial soil. Such are Elzevir, Grimsthorpe, Tudor, Lake, Cashel and parts of Limerick and Wallaston; the latter Township is, however, an exception—it contains at least 60 per cent. of good land. Tudor is the worst Township in my agency, yet it is the best settled, having a municipality of its own and a population of about 1,000 souls. This is owing entirely to the fact that it was rendered comparatively easy of access by the road running through it. All these Townships are rich in minerals; lead is found extensively in Tudor, Cashel and Limerick; copper in Lake; iron in Madoc, Marmora and Tudor; soap-stone is found in Elzevir; lithographic stone and a variety of other economic minerals are found in Madoc and Marmora.

The Townships lying to the northward of those just mentioned, and through which the waters flow entirely to the Ottawa, are of a different character. The face of the country is still hilly, but the hills are of a gentler slope and much longer than those in the southern Townships; the soil is also deep and mellow, consisting chiefly of a rich sandy loam, with vegetable mould; white crystalline limestone occurs in several parts of Dungannon and Faraday, but none has been found in Herschel, Monteagle or Bangor.

There are thriving settlements in Dungannon and Faraday, grist and saw-mills have been erected about the centre of these townships, at Lamatis Lake, and another grist mill is about to be built on the York branch of the Madawaska, close to the Hastings Road. The farm known as the Egan farm is in Dungannon; it is now the property of Harris, Brownson & Co., of Ottawa, and presents an excellent example of what can be done by the intelligent application of capital, skill and industry to agriculture in the heart of the territory under review. There are 310 acres cleared, and the greater part of it has been subjected to a system of exhaustive culture for eighteen years. The crops of last year were highly remunerative on this farm.

In Monteagle, Herschel, Wicklow and Bangor, there are also well-established and thriving settlements, particularly in Monteagle and Bangor. A large grist mill and a good saw mill are in full operation on the Papineau River, close to the intersection of the Peterson with the Hastings Road. I have sold and am still selling a great many lots to actual settlers in these townships, notwithstanding the great difficulty of reaching them over the existing road.

With regard to timber, I may state the whole of my agency is what is called a mixed timber country, that is to say, there are no large tracts of exclusively pine timber. There are some tracts of red and white pine in Limerick, Dungannon and Wicklow, and white pine of good quality is found mixed with the other woods in most of the townships; on this point I should state that I have examined the colored map of this territory, prepared by Mr. Devine, head of surveys for Upper Canada, with reference to my own agency, and I find it to be substantially correct, the quantity of good land is certainly not exaggerated. It is highly desirable that this map should be extensively circulated, it is the best possible way of conveying correct information about the territory.

My reports, to the Commissioner of Crown Lands at the close of each year, contain in full detail the particulars of each settler's improvements, and the quantity of each description of produce raised on every lot. I produce the report for last year for the information of the Committee, as these are not published in detail. The accuracy of my report for 1861 was questioned in evidence given before a Committee of the Legislative Assembly last year. I append the figures of my report, with those of the census for the same year, from which it will be seen that my report is fully sustained by the only test to which it is possible to refer.

The year 1861 was one of great success in all the agricultural products in this section. My returns of crops were therefore large beyond precedent, and appeared to offer a fair mark for attack. Fortunately for me, it was also the year of the Provincial Census, and the only one since the commencement of the settlement for which I could have procured corroborative evidence, taken by public officers of whom I had no knowledge or control. I append the figures from my report for 1861, and those of the census returns for Tudor, Lake, and the Hastings Road for the same year:—

MY REPORT FOR 1861.		CENSUS RETURNS FOR 1861.	
Spring Wheat, bushels.....	10,020	.....	10,937
Barley and Rye, “	403	.....	502
Peas, “	1,388	.....	1,214
Oats, “	10,345	.....	15,600
Potatoes, “	29,250	.....	35,389
51,406 bushels.		.....	63,642
		.....	51,406

The Census exceeding my Report by 12,236 bushels of grain and roots.

This excess is accounted for by the fact that the census returns include the settlers in Tudor and Lake, who are upon lots other than Free Grants, while my report is confined to the Free Grant settlers in these townships. The excess is, however, greater than the whole produce raised by the back settlers. There were then only about 70 or 80 settlers in Tudor, and less than 20 in Lake, exclusive of those on Free Grants, whose crops are included in both returns.

Ans. to Ques. 4 and 6.—My answers to these questions are contained in the foregoing.

Ans. to Ques. 5.—My agency includes 24 townships.

Ans. to Ques. 7.—I give a condensed table from my report for 1863, shewing the progress of settlement on the Free Grants, year by year, from the commencement in 1856, to the close of 1863.

TABLE NO. 1.—GENERAL PROGRESS OF SETTLEMENT.

Years.....	1856.	1857.	1858.	1859.	1860.	1861.	1862.	1863.
Locations entered	156	115	144	78	56	88	32	22
Acres cleared....	417	991	1547	2081	2681	3641	4553	5370
Buildings.....	60	134	187	252	336	407	512	580
Population	280	430	623	728	980	1010	970	1031
Horses.....	4	12	21	34	49	53	64	79
Horned Cattle...	22	65	128	226	338	575	869	827
Hogs	40	72	90	120	194	448	517	613
Sheep .....	...	...	...	26	35	36	59	188
Value of Crops....	No return	No return	\$21868.75	\$27659.32	\$35349.30	\$44418.15	\$46982.00	\$62725.70

My receipts on account of public lands in 1863 were \$7,869.05, and for the first four months of this year the receipts continued fully equal to the corresponding period of 1863. The influx of free-grant settlers has decreased, owing to the fact that nearly all the eligible lots accessible to settlers are occupied. The influx of settlers on purchased lots is steady and increasing.

Ans. to Ques. 8.—There has been no extensive abandonment of improved lots by locatees. In all new settlements there is a class of pioneers who make a trade of improving lots to a small extent, and selling out to new comers. They are a hardy and useful class of men, though of course these have their faults as well as other classes; these men are constantly selling and moving. I think about thirty is the outside number of those who have abandoned improved lots without sale, and these were chiefly in that part of the

road which is cut off by the extensive alteration of the line of road in Tudor. This alteration of the line was made contrary to my advice, and I think contrary to sound policy.

Ans. to Ques. 9.—Yes, in several of the townships there are extensive settlements. Tudor has the largest population, although it is certainly the worst township in the agency. Monteaale and Bangor are next in point of population. The settlements in both these townships are in a highly prosperous condition. In Tudor the settlements extend over the whole township with intervals of unoccupied land. In Monteaale they extend for about three miles east from the Hastings and the same distance south from the Peterson Road.

Ans. to Ques. 10.—On the whole, very bad. Portions of the road were improved last year, but the most important part remains to be done, namely, 24 miles in the centre and southern portion.

The Hastings Road was originally laid down in a straight line, north and south, in a rough, hilly country, without the exercise of any skill or judgment in the avoidance of natural obstacles and without any apparent desire to select the best line as regards the quality of the land, for on both sides the land improves considerably a short distance from the road, particularly in the centre township where the road is roughest. All the bad hills, however, can be very easily avoided on the present line, and it is, I believe, the intention of Government to make some improvements on the centre portion this summer. The system of doing the work by contract on these bush roads is essentially vicious and wasteful. The money is spent and the work is not done. It is impossible to define the work so closely in specifications, or to supervise it so steadily while in progress, as to prevent imperfect execution by the contractors. In making embankments or in raising the edge of a side-hill cutting, rotten logs, brush-wood and leaves are thrown in, covered over with a little earth, and made to look all smooth when the Inspector comes along, but as soon as traffic begins the road becomes useless. On the other hand, the system of employing the settlers in each locality by the day, has many advantages, and it is proved by experience to be not only the best, but also the cheapest way of making colonization roads in Upper Canada. The best eleven miles of colonization road in the Province is that made last summer on a line explored by the writer from York River to the centre of Monteaale, and it only cost \$280 a mile by day labor.

Ans. to Ques. 11.—I give a table shewing the nationality of the settlers.

NATIONAL ORIGIN OF SETTLERS.

England.....	48
Ireland	173
Scotland.....	43
Canada.....	91
Germany.....	27
France.....	2
Lower Provinces.....	2
Orkney.....	3
United States.....	9

398

The English are all persons who came on the road as soon as they arrived in the Province. The Irish and Scotch were mostly people who were some time in Canada before going to settle on the road.

Ans. to Ques. 12.—I would refer to my answer to previous question No. 3, as replying to this question.

Ans. to Ques. 13.—I have also given my opinion hereon at length in my reply to previous question No. 3.

Ans. to the five subjects of inquiry.—Respecting the system to be adopted for the promotion of settlement so as to combine the utilization and preservation of the merchantable timber with that object, I would say, 1st. The primary necessity for the settlement of the country, is to make good roads through the public lands. It is of very little consequence what system of sale or location (short of prohibitory measures) is adopted, provided

the roads are made ; for if the lands will support the people, and are rendered accessible, the people will get on them.

The best way to preserve and utilize the timber would be to have all the lots in each township specially inspected with reference to the timber, and those which are valuable chiefly on account of the pine, appraised at prices proportioned to the quantity they contain ; these lots should be offered for sale at the appraised value, free from settlement duties, and where these are within existing lumber limits, the merchant holding the limit might be allowed a preference in the purchase for a limited time after the opening of the township for sale ; I would not, however, have the timber on lots so solely declared free of dues but would put on a uniform stumpage rate in place of the present system, which bears unequally on the trade, and encourages a very wasteful selection of the best timber over wide tracts of the Public Forests, particularly in the saw-log trade, which is the chief trade in my agency. Mr. May, Crown Timber Agent in Belleville, admitted, in evidence before a Committee of the Legislature last year, that " under the present system three years will strip the Public Lands of all timber suitable for the Quebec trade in the Ontario agency."

So it is very necessary that some prompt measure should be taken in this direction or the Government will soon wake to consciousness of the fact that our Public Forests are exhausted.

On the subject of roads. We have quite enough of North and South roads now, in Upper Canada, if these were only made passable. We want cross-roads running East and West, particularly in the southern portions of the Territory, to give solidity to the settlements and secure the ground as an advance northward.

First and most important of such improvements, I would place a road from Perth, to run (at a distance of about 30 miles from Lake Ontario) through Peterboro, to Bradford or Holland Landing, on the Northern Railroad. This road would be of incalculable benefit to all the northern counties and ridings through which it would pass. It would facilitate and promote intercourse between them, now very difficult ; it would give a new front for the back townships, furnish a new start-point for settlement, and could be made at a cost comparatively trifling in view of its advantages. Many existing pieces of road could be made available, particularly 30 miles of a good gravel-road from Perth westward, and about 20 miles of the road between Marmora and Norwood.

There is another point of view in which such a work assumes a very important bearing. In consequence of the great temptations held out to able-bodied men in the neighboring States, we are losing a large number of our best young-men, particularly where cash-paying employment is scarce in the summer months, as in the back townships. This work would give such employment, in a highly remunerative direction for the country, and would serve to some extent as a counterpoise to the foreign temptation. A good ordinary country-road might be made for an average cost of \$600 per mile ; it could be made so as to serve as a bed for subsequent Macadamizing ; but in view of the great advantage such a road would be, as an internal line of communication for defensive purposes, it would be much better to make it at once a first class main road, and I have good reason to think the British Government would be willing to contribute a proportion of its cost, or accept it, in lieu of a corresponding expenditure for militia purposes, as a proof of our earnestness in that direction.

QUESTIONS AND ANSWERS.—SIR W. LOGAN.

Ques. 14. Are not you the chief of the Geological Department of Canada ?

Ans. Yes, I am.

Ques. 15. Can you give information to the Committee as to the geological structure of the territory lying between Lake Huron on the west, French River, Lake Nipissing, and the Ottawa River on the north and east, and the townships on the south, surveyed previously to 1850 ?

Ans. The formation of this territory is Laurentian. The term Laurentian is applied to a series of rocks composed of gneiss, interstratified with important bands of crystalline limestone, and comprehending great masses consisting chiefly of lime-feldspars. The settled portion of the columnous country comprising the Counties of Carleton, Lanark, Renfrew, and Leeds, includes considerable areas belonging to the Laurentian series.

Ques. 16. Judging from its formation, and from the knowledge you may otherwise possess of the said territory, can you state what extent of the territory is suitable for settlement?

Ans. I could not state the extent, as that would require a knowledge of the distribution of the limestone throughout the territory. In another portion of the Laurentian region, which I have examined in detail, I find the limestone to occupy about one-sixth part of it, and I would infer that about the same proportion would exist in the territory in question. But I would not confine the good soil wholly to the limestone bands.

In my report for the year 1856 (dated 31st March, 1857), the following statement was made for the purpose of comparing, in a general way and in an agricultural point of view, the lands bordering on the St. Lawrence and its great lakes, and undulated by devonian and silurian rocks, with those underlaid by the Huronian and Laurentian series, which come from beneath the former. I beg to place it before the Committee in explanation of my opinion.

"The fossiliferous rocks ("devonian and silurian") in a large part of Canada, maintaining an attitude approaching horizontality, give a much more even surface than the corrugated series ("Huronian and Laurentian") coming from beneath them, and this, combined with a generally good soil, renders them more favorable for agricultural purposes. It is over them, too, that the River St. Lawrence maintains its course, affording an unrivalled means of exit for the produce of the land, and of entrance for the materials that are to be received in exchange. It is only a natural result of these conditions that the area supported by the fossiliferous rock should be first settled. This area, however, constitutes only between 60,000 and 80,000 square miles, while the whole superficies of Canada comprehends 380,000 square miles, or about five times the amount.

"Four-fifths of Canada thus stand upon the lower unfossiliferous rock ("Huronian and Laurentian"), and it becomes a question of some importance, before it has been tested by extensive agricultural experiments, to know what support this large area may offer to an agricultural population. An undulating surface, derived from the contorted condition of the strata on which it rests, will more or less prevail over the whole of this region, but the quality of its soil will depend on the character of the rock from which it is derived.

"These rocks, as a whole, have very generally been called granite by those travellers who, with little more than casual observation, have described them, without reference to geological considerations. The ruins of granite are known to constitute an indifferent soil from their deficiency in lime, and hence an unfavorable impression is produced in respect to the agricultural capabilities of any extended area when it is called granitic. Such soils are, however, never wanting in those essential elements the alkalies, which are abundant in the feldspar of the granite.

"In the reports of the survey, the Laurentian rocks have been described in general terms as gneiss, interstratified with important masses of crystalline limestone. The term gneiss, strictly defined, signifies a granite with its elements, quartz, feldspar and mica, arranged in parallel planes, and containing a larger amount of mica than ordinary granite possesses, giving to the rock a scintose or lanular structure. When hornblende, instead of mica, is associated with quartz and feldspar the rock is termed syenite, but, as there is no distinct specific single name for a rock containing these elements in a lanular arrangement, it receives the appellation of syenitic gneiss.

"Gneiss rock then becomes divided into two kinds—granitic and syenitic gneiss. When the general term gneiss therefore is used, it may signify both kinds or either; and the epithets micaceous and hornblendic are applied to the rock to indicate that the mica greatly preponderates or excludes the hornblende, or the hornblende the mica." In no part of the Laurentian region hitherto examined "is hornblende completely absent from the gneiss, and sometimes it predominates over the mica; hornblende contains from ten to fifteen per cent. of lime, so that the veins of the rocks would never give a soil wholly destitute of lime. Of this necessary ingredient, the lime feldspars would be a more abundant source. Different species of them may contain from about five up to twenty-five per cent., and the range of those Canadian varieties which have been analyzed by Mr. Hart is from about seven to fifteen per cent.

"The ruins of the crystalline limestone constitute a most fruitful soil; so much so, that the lots first cleared in any settled area of the Laurentian country usually coincide

with its range. In these limestones, phosphate of lime is sometimes present in great abundance, and there is scarcely any large exposure of them examined in which small crystals of the phosphate are not discernible by the naked eye. Mica and iron pyrites are present to furnish other essential ingredients, and the easily-disintegrating character of the rock readily permits its reduction to a soil. The effects of these limestones and lime feldspars are not, however, confined to the immediate localities in which the beds are found, for boulders of them are met with transported to southern parts, even far on the fossiliferous rocks beyond, and there can be little doubt that their fragments are very generally mixed with the soils of the Laurentian country. Thus, while the diversity of minerals in the different rocks of the series furnishes the ingredients required to constitute good soils, the agency of the drift has mingled them, and, considering the resistance to disintegration offered by most of the rocks, with the exception of the limestone, the deficiencies that may exist will rather be in the quantity of soil covering the rock in elevated parts than in its quality where the materials have been accumulated.”—(*Appendix No. 52, A. 1857, pages 28 and 29.*)

Ques. 17. Have not surveys been conducted under your supervision by officers of the Geological Department, if so, can you state whether from their reports any large extent of country available for settlement is unlocated, and if so what part of the territory?

Ans. Yes: We have examined the Maganatawan, the Muskoka, the Petewawa, the Bonnehère, the York Branch of the Madawaska and the Gull River, as well as the French River, Lake Nipissing and the Mattawan. Mr. Murray the Assistant Geologist, was engaged in all these explorations but one, that of the Mattawan, and he reported to me the result of his examinations. He describes a considerable portion of the land on the upper part of the Maganatawan as suitable for cultivation, as the following extract from his Report on the Maganatawan will show:—

“Like other parts of the country, where rocks of the Laurentian age occupy the surface, the region of the Maganatawan and its tributaries contains much barren and rocky land, not likely to become of any great agricultural importance; but there are, nevertheless, many and extensive tracts where the indigenous growth bespeaks a fertile soil, and the contour of the ground offers no serious impediment to culture and improvement. Pine, both red and white, abound almost everywhere, and the facilities for the application of water power to machinery are in most parts ample. The entrance to the estuary from Lake Huron indicates only the most dreary sterility, but on ascending a few miles, patches of good land are observable, bearing maple, elm, and other hardwood trees with a sprinkling of good-sized pine.

“Between the estuary and Wahwash Lake, flats of good hardwood land occur in many parts, and they were especially observed on the great island formed by the splitting of the river into the two channels, which have been mentioned. South of Maple Island also, much of the soil appears to be productive. At the north-west end of Aumick Lake, there is an extensive growth of maple, mixed with other hardwood trees and good-sized pine, and to this locality the Indians annually resort to make their supply of maple sugar; but the best tract of all, so far as we had an opportunity of judging, is on the Doe River, from three to four miles above Doe Lake, where the land is tolerably level and nearly all clothed with hardwood. This hardwood country appeared to me to extend northward, nearly all the way to the main river, but over the southern expansion of Doe Lake, the hills are elevated and abrupt, and consequently less accessible than the rest of the area for the purposes of cultivation. Tracts of hardwood land extend still higher up the main stream than Doe River, and maple groves were by no means uncommon, so far as we followed its course. Along Wahzuke Lake, there is a sugar bush which appears to have been long a resort of the Indians, for the double purpose of trapping during the winter months and making a supply of sugar to return with to their homes in the spring. The greatest drawback to the settlement of the Maganatawan is its natural inaccessibility, and in this respect it contrasts very unfavorably with the Muskoka described in last years report. After leaving the estuary, the river is frequently broken by long furious rapids, which at certain seasons are far too shallow to admit of being safely run downward, and this necessarily involves long, tedious and often difficult portages, both ascending and descending. The Muskoka, on the other hand, rises by a repetition of heavy vertical or nearly vertical falls, which are easily obviated by portages not often exceeding a few chains. As

in the early stages of settlement the course of the river is the route that would naturally be resorted to for intercommunication, it is to be feared that such serious obstacles will stand greatly in the way of the improvement that much of the country in the valley of the Maganatawan is susceptible of receiving."—(*Appendix No. 52, A. 1857, pages 61 and 62*).

In the course of my examination of the Laurentian series, I have found the prevalence of the hardwood generally an indication of the existence of limestone bands. I would also state that the examinations of Mr. Murray of the country bordering on the Bonnechère River as far as Round Lake, which is the extreme limit of his examination on that river, disclosed a large quantity of cultivatable land and land in actual occupation. From Round Lake he struck southwardly to Lake Kamaniskaik and found the intermediate land to be a pine country. He states: "there is a marked difference in character between the soil on the south side of Lake Kamaniskaik, and that we had previously passed over to the north. Leaving Barry's Bay and the dense forest of pine by which it is surrounded, and emerging into the open expansion of the main lake, a hilly country, covered with hardwood trees, presents itself immediately opposite extending as far as the eye can reach on either hand. Portions of this hardwood country are highly capable of cultivation." He also found tracts of good hardwood land mixed with pine on the York Branch of the Madawaska River. The area of the whole Territory in question is very great, by far the larger portion of it has never been examined by the Geological Survey even in a general way, nor indeed has any very considerable portion of it been examined in detail. I attach much interest to the procuring of such an examination, the prevalence of phosphate of lime having a very important economical result in relation to the future of the territory. Iron ore, lead, plumbago, copper, mica, and other valuable minerals are also found in the territory. My impression is that a very considerable, though by no means the largest, portion of the territory will be found available for settlement.

It appears to me of the highest national importance that the available parts of the Laurentian region generally should be settled upon, as the Devonian and Silurian rocks hitherto chiefly resorted to constitute little more than an extended narrow strip along the frontier of the country.

By Mr. MACKENZIE :—

Ques. 18. Can you give information to the Committee of the geological structure of the country lying north of Lake Huron, the French River, Lake Nipissing, and the Mattawan?

Ans. That portion of the country lying north of the French River, Lake Nipissing, and the Mattawan is still Laurentian as far back as to a line drawn from Shebanauhenawing to the mouth of the Montreal River, on Lake Temiscaming. From that line westwardly to the River St. Mary and Lake Superior the country is occupied for a considerable breadth by the Huronian formation. There is not much limestone in the Laurentian tract referred to north of French River, Lake Nipissing, and the Mattawan; but there is interstratified in the Huronian series a great amount of greenstone, the ruins of which produce good soil. Mr. Murray, who has conducted explorations in this portion of the country, reports considerable areas of good land, and it appears to me that the territory deserves to be explored for the purposes of settlement. The Huronian constitutes the lower copper-bearing series of the western part of Canada, and is known to be important for its minerals.

ANSWERS OF ALLAN GILMOUR, ESQ.

Ans. to Ques. 1. I am extensively engaged in the lumber trade in the Ottawa and Trent regions of the country.

Ans. to Ques. 2. I have for the last twenty years had the opportunity of making observations of that portion of the territory lying between the Ottawa River and the country immediately in rear of Peterboro', and down as far as Kingston. I know nothing of the country extending westwardly of that. I am, however, familiar with the country bordering on the Petawawa, which is a very rough country, and, in my opinion, unfit for settlement. The portion of country I have spoken of I have found to be generally a rough country, very much broken, with patches occasionally of good land, but none of it I consider equal to the good lands on the frontier of the St. Lawrence. It is of the Laurentian formation.

The greater portion I do not think adapted for settlement. My impression is, that the Crown Lands Maps, prepared by Mr. Devine, exhibiting the supposed character of the surveyed portions of the country I am speaking of, present too favorable a view of the country in question.

The interests of colonization are directly promoted by the lumber trade, which provides an excellent market for everything the settler has to dispose of, at much higher than are obtained in the older settlements, where the demand for the lumber trade is not felt, and the longer this trade is maintained the better will it be for the agriculturists and the country at large.

To insure a wise selection of the lands for settlement, it appears to me indispensable that a number of competent and trustworthy inspectors should be employed by Government to examine carefully the country, for the purpose of determining where the best lands are to be found for agricultural purposes, and where these exist in a sufficient quantity and of a description that will warrant Government aiding the settlement thereof, by opening up roads thereto, and which should in such cases be done. I am, however, clearly of opinion that such encouragement should not be given for settlement on pine lands, because as already stated of their inferiority of soil generally, and because the pine forests cannot long be preserved from destruction by fires, after settlement has taken place amongst them to any considerable extent.

ANSWER TO QUESTIONS 1, 2 AND 3, BY MR. S. J. DAWSON.

I am acquainted with the country bordering on the Upper Ottawa and its tributaries. In the direction of Lake Nipissing I have been as far as Trout Lake, on the Matawan, and on the Main Ottawa, some distance beyond the head of Lake Temiscamieque. I have also travelled frequently through the country towards the sources of the Madawaska, the Petawawé and Amable du Fonds, which latter is a branch of the Matawan, taking its rise between the sources of the Petawawa and Lake Nipissing.

As far as the Joachim, at the head of the Deep River, the country is too well known to need any particular description. To that point a steamer runs during the season of navigation from Pembroke. As a general rule, settlement is advancing as fast as the nature of the country will permit in the recently opened townships on the Ottawa, and a growing trade and an increasing population fully attest the progress and prosperity of the country.

North-westward from the Joachim, on the immediate borders of the Ottawa and Matawan Rivers, the country is rough and broken, presenting but few places where settlements could be advantageously formed. In the interior, however, towards the sources of the streams which have their rise at the height of land between the Georgian Bay, of Lake Huron and the Ottawa, there are occasional though limited areas of cultivable land, but the country is hilly, in many places rocky, and everywhere very much cut up with small lakes. In general, hardwood, indicative of land fit for settlement, is to be seen only on the mountain slopes or on the summits of the higher grounds, and where these spread out, as is sometimes the case, so as to afford an extended area, there might be room for several farms. Westward of the height of land, on the streams flowing towards the Georgian Bay, that is, on the Muskoka and the Maganetawan, the country, to judge from the reports of the Geological Survey, is much of the same character as that which I have just attempted to describe. The rock formation throughout this extensive region is Laurentian, and the country, as is always the case when that formation exclusively prevails, is characterized by rock and mountain, by rivers with high cataracts and by innumerable little lakes in rock-bound basins. The prevailing growth of wood on the promontories of the lakes, on the banks of the rivers, and in the swamps, is generally of some description of pine, that is, when the country has not been swept by fire, while hardwood sometimes looks out on the higher grounds. Vast areas have been swept by fire; and where this is the case, poplar often becomes the prevailing growth, while the tall trunks of decaying pines, standing out from apparently interminable forests of this worthless description of wood, still serve to indicate with what valuable forests the country was at one time covered.

They greatly err who represent the region I have endeavored to describe as being well adapted for extensive or continuous settlement.

Passing, for the moment, from the second question to the fourth, and in reference to the country north of that just described, proceeding from the mouth of the Matawin to Lake Temiscamiquine, the Ottawa river is still bordered by a hilly broken and, in general, pine covered country. There is, however, in this section a very important navigable reach called Seven League Lake, and on the borders of this fine sheet of water, there are several openings which lead to better land in the interior, more especially one on the south side where there is some very fair land under cultivation, which seems to be connected with a plateau of good land which is said to extend from the upper part of the Matawan and Lake Nipissing to Lake Temiscamiquine.

On reference to the map, it will be seen that a line drawn from the eastern end of Lake Nipissing to the lower end of Lake Temiscamiquine would form a rough triangle, having the Ottawa to the north and east, and the Matawan to the south. In this section all accounts agree as to the existence of an extensive area of good hardwood land, in every way well adapted for settlement. Above the Long Sault, it borders the western side of the lower end of Lake Temiscamiquine in a high alluvial plateau, where the growth of timber indicates a soil of at least average fertility. In this I speak from my own observation, and I have the authority of Mr. Rinaldo McConnell, a gentleman well acquainted with that section of the country, for saying that land of an equally good description extends with but little interruption from thence to Lake Nipissing. Mr. McConnell at one time cut a winter road at his own cost, from Trout Lake to Lake Temiscamiquine, by which he drew in supplies for his lumber establishments on the latter lake, and is therefore well qualified to express an opinion as to the character of the country.

It appears, then, that in this section there is a wide area of land fit for settlement, touching on one side on a great navigable reach of the Ottawa, and extending on the other to a large lake which might at small cost be rendered of easy access from Lake Huron.

It would be difficult to overrate the importance of such a tract of cultivated land in a region but too generally uninviting to settlement, more especially when it is considered that it is on the very route which must be eventually adopted for the supply of the lumber trade now extending to Lake Temiscamiquine.

The extensive territory drained by the numerous rivers which flow into Lake Temiscamiquine, must sooner or later become of great importance. In reference to this section, I beg to transcribe a portion of my evidence given last year before the Ottawa Navigation Committee.

"This lake, with its tributary the Blanche, which enters at its northern end presents more than a hundred and twenty miles of unbroken navigation. It is the great basin whence the Ottawa issues, and it receives the drainage of a region having an area of upwards of 30,000 square miles, or over nineteen millions of acres. Among the rivers which here unite their waters may be mentioned, the Nippawa which flows from a large lake to the eastward; the Montreal and the Ottertail which take their rise to the westward, in the same region as that in which lies the Tamagamiquine Lake, which sends its waters by the Sturgeon River to Lake Nipissing, the Blanche which has its source near the Abittibi and the Quinze which sweeps far from the northeastward where its tributaries interlace with those of the St. Maurice. The country bordering on this great interior basin, is of a character exceedingly varied, presenting in some places land fit for cultivation and in others granitic cliffs, which rise abruptly from the water. Towards the head of the Lake mountains gradually disappear, and on approaching the Blanche a tract comparatively level extends as far as the eye can reach." Since the above evidence was given, I have learned that the Blanche is navigable for some sixty miles beyond Lake Temiscamiquine, and that the country for that distance continues level with very good land, both on the borders of the river and inland so far as explored.

This great change in the character of the country is due to its geological formation. In the work of the geological survey recently published, it is remarked that rocks are met with at the head of Lake Temiscamiquine of apparently the same age as the Niagara formation. I transcribe a few passages.

"These (rocks) properly belong to the great northern fossiliferous trough connected with Hudson's Bay, of which they are probably an outlier. Being, however, the only por-

tion of the fossiliferous strata on the northern side of the Laurentian mountains which has come under our observation, they are, for the present, noticed in connection with the Niagara series of the southern basin. On Lake Temiscamisque they lie unconformably on the slate conglomerates and sand stones of the Huronian series, &c., &c., &c."

"The thickness of these strata, exposed in any one observed section, does not exceed a hundred feet, but it is probable that the total amount of the Niagara formation is here not less than 300 feet, and it may obtain 500 feet, &c." "The strata lie in the form of a shallow trough, resting sometimes on the sandstones and sometimes on the slates, occupying the breadth of the lake, which is from five to six miles, and extending from the southern side of the Southern Great Island to some unknown distance northward."

Here, then, is a valley extending to an unknown distance, where the rock formation is the same as that which accompanies the most productive lands in Canada. All the conditions are favorable to settlement. A fertile valley, with a navigable river flowing through it, and in close proximity to a large lake which must soon become the centre of a considerable trade in timber. In regard to climate I believe this valley would compare favorably with any part of Lower Canada east of Montreal. It is, indeed, half a degree further north than Quebec, but it is in the same longitude as Toronto, and its elevation, although so far in the interior, is only seven or eight hundred feet above the level of the sea. It would not be difficult to show that there are causes operating to warrant the assumption that the climate must be fully equal to that of the north shore of the St. Lawrence, between Montreal and Quebec—the winter perhaps a little colder, but the summer quite as long and warm, while the quantity of snow which falls in winter must be, in fact, less than on the latter section.

Lake Temiscamisque, with the exception of the good land already mentioned as existing at its upper and lower end, presents but few places on its shores fit for settlement, but the extensive territory of which it receives the drainage abounds in red and white pine; and when the best timber is swept from the country lower down,—as, at the present rate at which it is being cut away by the lumbermen, or burned up by the settlers, it soon will be,—the lumbermen, from necessity, must establish themselves at Lake Temiscamisque, as, indeed, some of them have already done. There will then be a ready market and good prices for all the agricultural produce that can be raised at the upper or lower ends of the lake.

To render this territory accessible, a communication of some kind should be opened by way of the French River and Lake Nipissing. It would, of course, require a vast outlay to construct works such as would be required for opening the contemplated communication to large vessels; but in the meantime a good land road might be made at small cost from Lake Nipissing to Lake Temiscamisque, and the navigation of French River improved, so that boats capable of being drawn over *portages* could ascend with facility. In this way, also, the Matawan River might be improved, so that there might be a boat communication all the way from Lake Huron to the Ottawa; and it will not fail to be observed that the opening of such a communication would be a valuable preliminary step to works of a more extended character; while in the meantime it would at once throw open the country to the lumbermen who would in their turn soon be followed by settlers.

In regard to the subject of the 3rd question, namely: "The best mode of dealing with the portions of country producing merchantable timber, in order to combine the interests of colonisation with the utilisation and preservation of such timber?"

I am of opinion that with good management these interests might be combined, but certainly not by a continuation of the system at present in operation. On the one hand, the imposition of heavy, vexatious, and, in many instances, most unjust penalties on the lumbermen for the non-occupation of limits, has the effect of over-stimulating production to such an extent that the forests are slashed needlessly down, the markets glutted, and much valuable timber almost given away or sold for less than half its value. Thus, for the sake of gaining a small immediate revenue, the country is being swept of a crop which will not grow again, and future generations deprived of an heirloom which the present gains nothing by destroying. On the other hand, colonisation roads are sometimes made through districts which are valuable only on account of their pine forests, and where, but for the lumber trade, settlers could not subsist. The settler, as a matter of course, has the torch constantly in his hand, but chiefly at the season when fires are most likely to

spread in the woods. Thus, wide areas are devastated; pines, the growth of centuries, laid prostrate; and the lumbermen often compelled to withdraw from a locality where his presence was necessary to the subsistence of the settler. I have known much misery and distress result to settlers from being induced to enter on lands which, neither in regard to soil or means of communication, were adapted for agricultural purposes.

It has been too much and too generally the habit to regard the vast unsettled regions of Canada as requiring but the means of access to render them fit for settlement, but this is an illusion which it is to be hoped the valuable and reliable reports of the Geological Survey will in time dispel; and it is highly creditable to the director and officers of that survey that in no instance have they yet been detected in error as to the character of the tracts they have explored. In the *Geology of Canada*, under the head of "Algoma Land" (page 907), it is remarked, that "to the north of Lake Huron, and between Georgian Bay and the Ottawa River, part of the country consists of bare rock, but where any superficial covering exists it is almost invariably a yellow sand. This also overlies the clays of this region which have just been described and are exposed only in river cuttings."

The region, therefore, between Georgian Bay and the Ottawa bounded to the north by the Matawan, Lake Nipissing and French River, and to the south by the recently surveyed townships, can hardly be considered very inviting to settlement. There are, however, as I have already stated, occasional areas of fair land to be met with, but not of sufficient extent to warrant the adoption of any forcing process to attract settlement. Settlers will always follow in the wake of the lumbermen, and will establish themselves where they find land suitable for their operations, and in such a region as that of which I am speaking, I think the Government would best consult and continue the interests of the settler and the lumberman by opening leading lines of communication, such as that by French River, the Matawan and the Ottawa, and leaving matters otherwise to take their natural course. Always of course, affording aid in the construction of roads when experience should prove their necessity. In such a country, settlement should always be allowed to progress so far as to indicate the lands fit for its development before these lands are actually laid off in lots. Much evil and great injustice sometimes results from the laying off of townships in pine covered regions where there is no prospect of the early approach of settlement. The lands are purchased not by actual settlers, but by speculators who seek to profit by the previous investment of the lumberman and break up and destroy the limits which it may have cost large sums to render accessible.

In regard to the region north of Lake Nipissing and the Mattawan, intersected as it is by long reaches of navigable water, abounding in pine and with undeniably good land in certain places, it would no doubt, soon become of importance if rendered accessible.

On this section there need be no clashing between the lumberman and the settler. There, at least, the line between the cultivable land and that which is but fit for the operations of the lumberer is clearly defined. Nature has marked it with two very distinct formations, and it would be a matter of no small interest and importance to the Province to see settlement introduced at the commencement of the fossiliferous strata which, north of the Laurentian Mountains, very probably underlie the country where the upper tributaries of the Ottawa, the St. Maurice, and the Saguenay have their source.

APPENDIX.

THE COLONIZATION ROADS ON THE OTTAWA AND HURON TRACT.

The *Opeongo Road* commences at the village of Renfrew, in the county of that name, and extends in a north westerly direction to the Great Opeongo Lake. The general direction of this line of road would pass through the large tract of good land south of Lake Nipissing, but the intervention of a considerable section of bad land to the east of the lake, prevented the Government from carrying the road any further west.

The *Opeongo Road* is intersected by the *Peterson Road*, the *Hastings Road* and another, which, leading from the township of *Grattan*, intersects the *Adlington Road* at the *River Madawaska*.

The Addington Road commences in the township of Barrie, and extends in a northerly direction through the townships of Barrie, Abinger, Denbigh, Lyndoch and Brudenell, until it intersects the Peterson Road, near to the Opeongo Road.

The Hastings Road extends from the township of Madoc to the intersection of the Opeongo Road, and passes through the townships of Tudor, Limerick, Dungannon, Mont-eagle, Wicklow, Lyell and Marchison. This road should be extended through the townships of Sabine and Airy, in a north-westerly direction, between the Great Opeongo Lake and White Fish Lake, and through the tract of good land south of Lake Nipissing. The extension of this line would pass through the good lands mentioned by Mr. Snow and other surveyors, round Great Opeongo Lake.

The Mississippi Road runs from the township of Lavant through the townships of Palmerston, Clarendon, Miller, Abinger, Denbigh, Ashby, Mayo and Dungannon, to the intersection of the Hastings Road, a short distance north of L'Amable Lake. This road passes through a large tract of good land, and should be continued nearly due west from this point until it meets the Bobcaygeon Road, in the township of Snowdon, thus affording a communication with the Burleigh Road and the townships south of the Canadian Land and Emigration Co.'s lands.

The Burleigh Road commences at the south-west angle of the Township of Burleigh, and extends in a northwesterly direction along Beaver Creek, through the Townships of Burleigh, Chandes, Cardiff and Monmouth to the intersection of the Peterson in the Township of Dudley; this line should extend northerly in the direction of Lake Nipissing.

The Bobcaygeon Road extends from the Village of Bobcaygeon northerly, and has been surveyed in that direction to French River.

The Victoria Road extends from Ops to the intersection of the Peterson Road, where it terminates.

The Muskoka Road commences at the River Severn and passes nearly diagonally across the township of that name to the Great Muskoka Falls; from this point it runs along part of the easterly boundary line of the Township of Monck, and from thence diagonally across the Townships of Macaulay, Stephenson and Brunell to the intersection of the Bobcaygeon Road, and should be prolonged in an easterly direction to meet the Opeongo Road.

The Parry Sound Road runs from Parry Sound, on the Georgian Bay, in a south-easterly direction till it meets the Muskoka Road in the Township of Monck.

JAN 20/28

